

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/532,064  
Source: PT/10  
Date Processed by STIC: 4/29/05

# ***ENTERED***



PCT

## RAW SEQUENCE LISTING

DATE: 04/29/2005

PATENT APPLICATION: US/10/532,064

TIME: 16:01:41

Input Set : A:\050253.txt

Output Set: N:\CRF4\04292005\J532064.raw

```

3 <110> APPLICANT: AMANO ENZYME INC.
4     SUZUKI, Kanako
5     TSUKAGOSHI, Norihiro
7 <120> TITLE OF INVENTION: Microorganism in which an isomaltose-producing enzyme is
deleted
9 <130> FILE REFERENCE: P0205201
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/532,064
C--> 11 <141> CURRENT FILING DATE: 2005-04-20
11 <150> PRIOR APPLICATION NUMBER: JP P2002-307922
12 <151> PRIOR FILING DATE: 2002-10-23
14 <160> NUMBER OF SEQ ID NOS: 27
16 <170> SOFTWARE: PatentIn version 3.1
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 11
20 <212> TYPE: DNA
21 <213> ORGANISM: Artificial Sequence
23 <220> FEATURE:
24 <223> OTHER INFORMATION: Description of Artificial Sequence: an enhancer sequence
26 <220> FEATURE:
27 <221> NAME/KEY: misc_feature
28 <222> LOCATION: (6)..(11)
29 <223> OTHER INFORMATION: n stands for any base
32 <400> SEQUENCE: 1
W--> 33 ccaatnnnnn n                                     11
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 14
38 <212> TYPE: DNA
39 <213> ORGANISM: Artificial Sequence
41 <220> FEATURE:
42 <223> OTHER INFORMATION: Description of Artificial Sequence: an enhancer sequence
44 <220> FEATURE:
45 <221> NAME/KEY: misc_feature
46 <222> LOCATION: (4)..(12)
47 <223> OTHER INFORMATION: n stands for any base
50 <400> SEQUENCE: 2
W--> 51 cggnnnnnnn nngg                                     14
54 <210> SEQ ID NO: 3
55 <211> LENGTH: 11
56 <212> TYPE: DNA
57 <213> ORGANISM: Artificial Sequence
59 <220> FEATURE:
60 <223> OTHER INFORMATION: Description of Artificial Sequence: an enhancer sequence
62 <400> SEQUENCE: 3
63 ccaattagaa g                                         11

```

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```

66 <210> SEQ ID NO: 4
67 <211> LENGTH: 14
68 <212> TYPE: DNA
69 <213> ORGANISM: Artificial Sequence
71 <220> FEATURE:
72 <223> OTHER INFORMATION: Description of Artificial Sequence: an enhancer sequence
74 <220> FEATURE:
75 <221> NAME/KEY: misc_feature
76 <222> LOCATION: (5)..(5)
77 <223> OTHER INFORMATION: n stands for any base
80 <220> FEATURE:
81 <221> NAME/KEY: misc_feature
82 <222> LOCATION: (10)..(10)
83 <223> OTHER INFORMATION: n stands for any base
86 <400> SEQUENCE: 4
W--> 87 cgghnwwwn whgg 14
90 <210> SEQ ID NO: 5
91 <211> LENGTH: 14
92 <212> TYPE: DNA
93 <213> ORGANISM: Artificial Sequence
95 <220> FEATURE:
96 <223> OTHER INFORMATION: Description of Artificial Sequence: an enhancer sequence
98 <400> SEQUENCE: 5
99 cggwwwwwww whgg 14
102 <210> SEQ ID NO: 6
103 <211> LENGTH: 14
104 <212> TYPE: DNA
105 <213> ORGANISM: Artificial Sequence
107 <220> FEATURE:
108 <223> OTHER INFORMATION: Description of Artificial Sequence: an enhancer sequence
110 <400> SEQUENCE: 6
111 cggaatttta aagg 14
114 <210> SEQ ID NO: 7
115 <211> LENGTH: 14
116 <212> TYPE: DNA
117 <213> ORGANISM: Artificial Sequence
119 <220> FEATURE:
120 <223> OTHER INFORMATION: Description of Artificial Sequence: an enhancer sequence
122 <400> SEQUENCE: 7
123 cggaatttaa acgg 14
126 <210> SEQ ID NO: 8
127 <211> LENGTH: 14
128 <212> TYPE: DNA
129 <213> ORGANISM: Artificial Sequence
131 <220> FEATURE:
132 <223> OTHER INFORMATION: Description of Artificial Sequence: an enhancer sequence
134 <400> SEQUENCE: 8
135 cggaatttta acgg 14
138 <210> SEQ ID NO: 9

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139 <211> LENGTH: 128
140 <212> TYPE: DNA
141 <213> ORGANISM: Artificial Sequence
143 <220> FEATURE:
144 <223> OTHER INFORMATION: Description of Artificial Sequence:a DNA fragment including
CCAAT
145     sequence and SRE
147 <400> SEQUENCE: 9
148 ccaattagaa gcagcaaagc gaaacagccc aagaaaaagg tcggcccgtc ggccttttct      60
150 gcaacgctga tcacgggcag cgatccaacc aacaccctcc agagtgacta ggggcggaaa      120
152 tttaaagg                                     128
155 <210> SEQ ID NO: 10
156 <211> LENGTH: 196
157 <212> TYPE: DNA
158 <213> ORGANISM: Artificial Sequence
160 <220> FEATURE:
161 <223> OTHER INFORMATION: Description of Artificial Sequence:a DNA fragment including
CCAAT
162     sequence and SRE
164 <400> SEQUENCE: 10
165 ctgcagacca cctctaggca tcggacgcac catccaatta gaagcagcaa agcgaaacag      60
167 cccaagaaaa aggtcggccc gtcggccttt tctgcaacgc tgatcacggg cagcgatcca      120
169 accaacaccc tccagagtga ctaggggcgg aaattttaaag ggattaattt ccactcaacc      180
171 acaaatcaca ctgcag                                     196
174 <210> SEQ ID NO: 11
175 <211> LENGTH: 193
176 <212> TYPE: DNA
177 <213> ORGANISM: Artificial Sequence
179 <220> FEATURE:
180 <223> OTHER INFORMATION: Description of Artificial Sequence:a DNA fragment including
CCAAT
181     sequence and SRE
183 <400> SEQUENCE: 11
184 ctcgagaggc atcgagcgca ccatccaatt agaagcagca aagcgaaaca gcccaagaaa      60
186 aaggtcggcc cgtcggcctt ttctgcaacg ctgatcacgg gcagcgatcc aaccaacacc      120
188 ctccagagtg actaggggcg gaaatttaaa gggattaatt tccactcaac cacaaatcac      180
190 agtcggcggc cgc                                     193
193 <210> SEQ ID NO: 12
194 <211> LENGTH: 615
195 <212> TYPE: DNA
196 <213> ORGANISM: Aspergillus oryzae
198 <220> FEATURE:
199 <221> NAME/KEY: promoter
200 <222> LOCATION: (1)..(615)
201 <223> OTHER INFORMATION:
W--> 203 <400> 12
204 gaattcatgg tgttttgate attttaaatt tttatatggc ggggtggtggg caactcgctt      60
206 ccgggcaact cgcttaccga ttacgttagg gctgatattt acgtaaaaat cgtcaaggga      120
208 tgcaagacca aagtagtaaa accccggagt caacagcatc caagcccaag tccttcacgg      180
210 agaaacccca gcgtccacat cacgagcgaa ggaccacctc taggcatcgg acgcaccatc      240
212 caattagaag cagcaaagcg aaacagccca agaaaaaggt cggcccgtcg gccttttctg      300
214 caacgctgat cacgggcagc gatccaacca acacctcca gaggtagtag gggcggaaat      360

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```

216 ttaaagggat taatttccac tcaaccacaa atcacagtcg tccccggtat tgtcctgcag      420
218 aatgcaattt aaactcttct gcgaatcgct tggattcccc gccctggcc gtagagctta      480
220 aagtatgtcc cttgtcgatg cgatgtatca caacatataa atactagcaa gggatgccat      540
222 gcttggagga tagcaaccga caacatcaca tcaagctctc ctttctctga acaataaacc      600
224 ccacagaagg cattt                                     615
227 <210> SEQ ID NO: 13
228 <211> LENGTH: 44
229 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
232 <220> FEATURE:
233 <223> OTHER INFORMATION: Description of Artificial Sequence: a PCR primer designed
for amp
234         lifying CCAAT sequence
236 <400> SEQUENCE: 13
237 ccgctcgagg caccatccaa ttagaagcgc ggccgctaaa ctat                        44
240 <210> SEQ ID NO: 14
241 <211> LENGTH: 44
242 <212> TYPE: DNA
243 <213> ORGANISM: Artificial Sequence
245 <220> FEATURE:
246 <223> OTHER INFORMATION: Description of Artificial Sequence: a PCR primer designed
for amp
247         lifying CCAAT sequence
249 <400> SEQUENCE: 14
250 atagtttagc ggccgcgctt ctaattggat ggtgcctcga gcgg                        44
253 <210> SEQ ID NO: 15
254 <211> LENGTH: 46
255 <212> TYPE: DNA
256 <213> ORGANISM: Artificial Sequence
258 <220> FEATURE:
259 <223> OTHER INFORMATION: Description of Artificial Sequence: a PCR primer designed
for amp
260         lifying SRE
262 <400> SEQUENCE: 15
263 gactagttaa cctaggggcg gaaatttaac gggatgttaa ctagtc                        46
266 <210> SEQ ID NO: 16
267 <211> LENGTH: 46
268 <212> TYPE: DNA
269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: Description of Artificial Sequence: a PCR primer designed
for amp
273         lifying SRE
275 <400> SEQUENCE: 16
276 gactagttaa catcccgtaa aatttccgcc ctaggttaa ctagtc                        46
279 <210> SEQ ID NO: 17
280 <211> LENGTH: 30
281 <212> TYPE: DNA
282 <213> ORGANISM: Artificial Sequence
284 <220> FEATURE:
285 <223> OTHER INFORMATION: Description of Artificial Sequence: a PCR primer designed
for amp
286         lifying a DNA fragment including CCAAT sequence and SRE

```

288 <400> SEQUENCE: 17

## RAW SEQUENCE LISTING

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Input Set : A:\050253.txt

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```

289 aaactgcaga ccacctctag gcatcggacg                      30
292 <210> SEQ ID NO: 18
293 <211> LENGTH: 30
294 <212> TYPE: DNA
295 <213> ORGANISM: Artificial Sequence
297 <220> FEATURE:
298 <223> OTHER INFORMATION: Description of Artificial Sequence: a PCR primer designed
for amp
299         lifying a DNA fragment including CCAAT sequence and SRE
301 <400> SEQUENCE: 18
302 tttctgcagt gttgatttgt ggttgagtgg                      30
305 <210> SEQ ID NO: 19
306 <211> LENGTH: 27
307 <212> TYPE: DNA
308 <213> ORGANISM: Artificial Sequence
310 <220> FEATURE:
311 <223> OTHER INFORMATION: Description of Artificial Sequence: a PCR primer designed
for amp
312         lifying a DNA fragment including CCAAT sequence and SRE
314 <400> SEQUENCE: 19
315 cggtctgagg catcgacgc accatcc                          27
318 <210> SEQ ID NO: 20
319 <211> LENGTH: 40
320 <212> TYPE: DNA
321 <213> ORGANISM: Artificial Sequence
323 <220> FEATURE:
324 <223> OTHER INFORMATION: Description of Artificial Sequence: a PCR primer designed
for amp
325         lifying a DNA fragment including CCAAT sequence and SRE
327 <400> SEQUENCE: 20
328 atagtttagc ggccgccgac tgtgatttgt ggttgagtgg          40
331 <210> SEQ ID NO: 21
332 <211> LENGTH: 45
333 <212> TYPE: DNA
334 <213> ORGANISM: Artificial Sequence
336 <220> FEATURE:
337 <223> OTHER INFORMATION: Description of Artificial Sequence:a primer for site-
directed mut
338         agensis
340 <400> SEQUENCE: 21
341 cgcttgatt ccccgccgc ggccgcagag cttaaagtat gtccc      45
344 <210> SEQ ID NO: 22
345 <211> LENGTH: 45
346 <212> TYPE: DNA
347 <213> ORGANISM: Artificial Sequence
349 <220> FEATURE:
350 <223> OTHER INFORMATION: Description of Artificial Sequence:a primer for site-
directed mut
351         agensis
353 <400> SEQUENCE: 22
354 gaatgcaatt taaactcttc ctcgagtcgc ttggattccc cgccc    45
357 <210> SEQ ID NO: 23
358 <211> LENGTH: 47

```

359 <212> TYPE: DNA

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/532,064

DATE: 04/29/2005  
TIME: 16:01:42

Input Set : A:\050253.txt  
Output Set: N:\CRF4\04292005\J532064.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 6,7,8,9,10,11  
Seq#:2; N Pos. 4,5,6,7,8,9,10,11,12  
Seq#:4; N Pos. 5,10

)

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/532,064

DATE: 04/29/2005

TIME: 16:01:42

Input Set : A:\050253.txt

Output Set: N:\CRF4\04292005\J532064.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No  
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:33 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:51 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
L:87 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:203 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:12,Line#:201